

FIG. 1

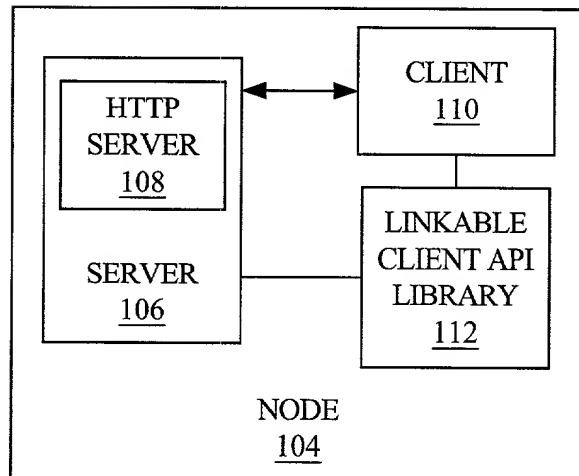


FIG. 2

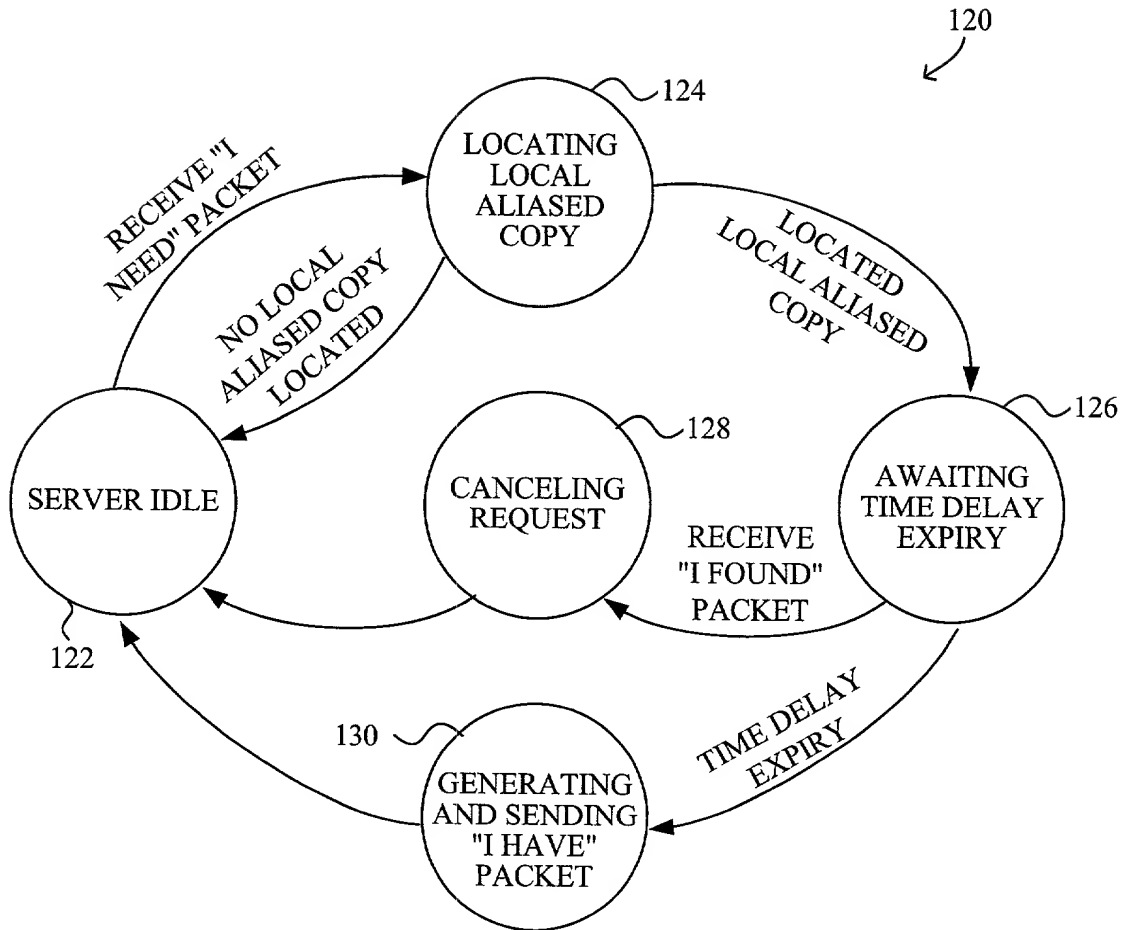


FIG. 3

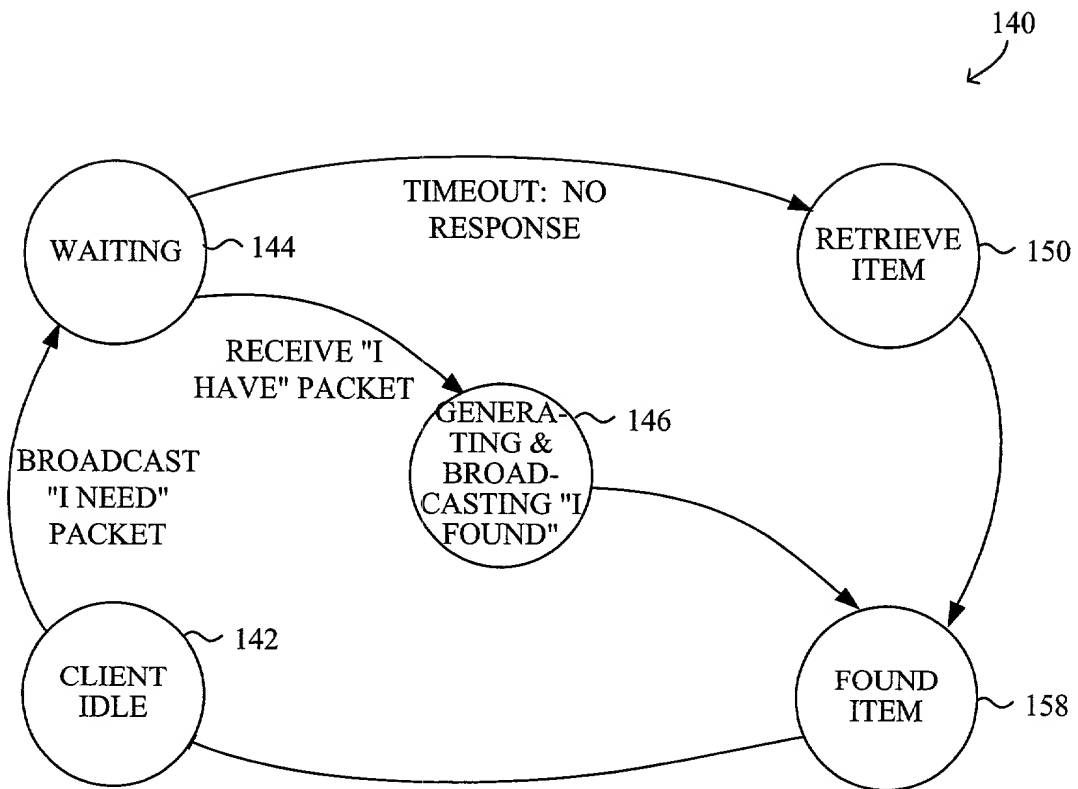


FIG. 4A

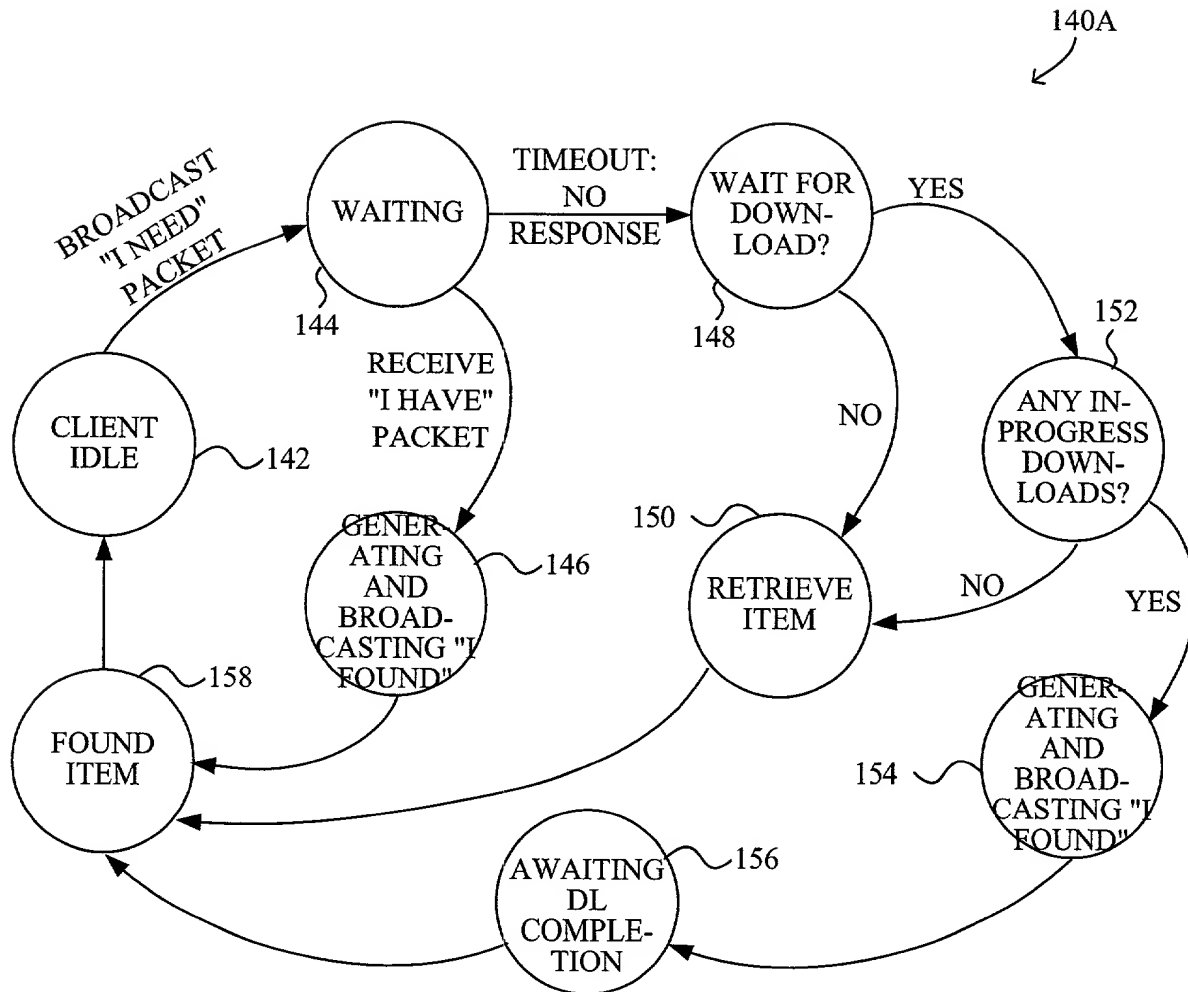


FIG. 4B

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START

180

LISTEN ON A DESIGNATED PORT OF A SERVICE SERVER FOR A BROADCAST
REQUEST MESSAGE FROM A PEER CLIENT ON THE NETWORK

~182

RECEIVE A BROADCAST REQUEST MESSAGE ON THE DESIGNATED PORT
FROM A PEERING CLIENT ON THE NETWORK

~184

DOES
SERVICE SERVER HAVE A
LOCAL ALIASED COPY OF THE
REQUESTED
ITEM?

~186

No

Yes

AWAIT A RANDOMLY GENERATED DELAY RESPONSE PERIOD AND LISTEN
FOR BROADCAST "I FOUND" PACKET FROM REQUESTING CLIENT
CORRESPONDING TO RECEIVED REQUEST PACKET

~188

RECEIVE "I
FOUND" PACKET

190

192

EXPIRY OF DELAY
RESPONSE PERIOD

CANCEL RESPONSE TO REQUEST

TRANSMIT "I HAVE" PACKET TO
REQUESTING PEER CLIENT

END

FIG. 5

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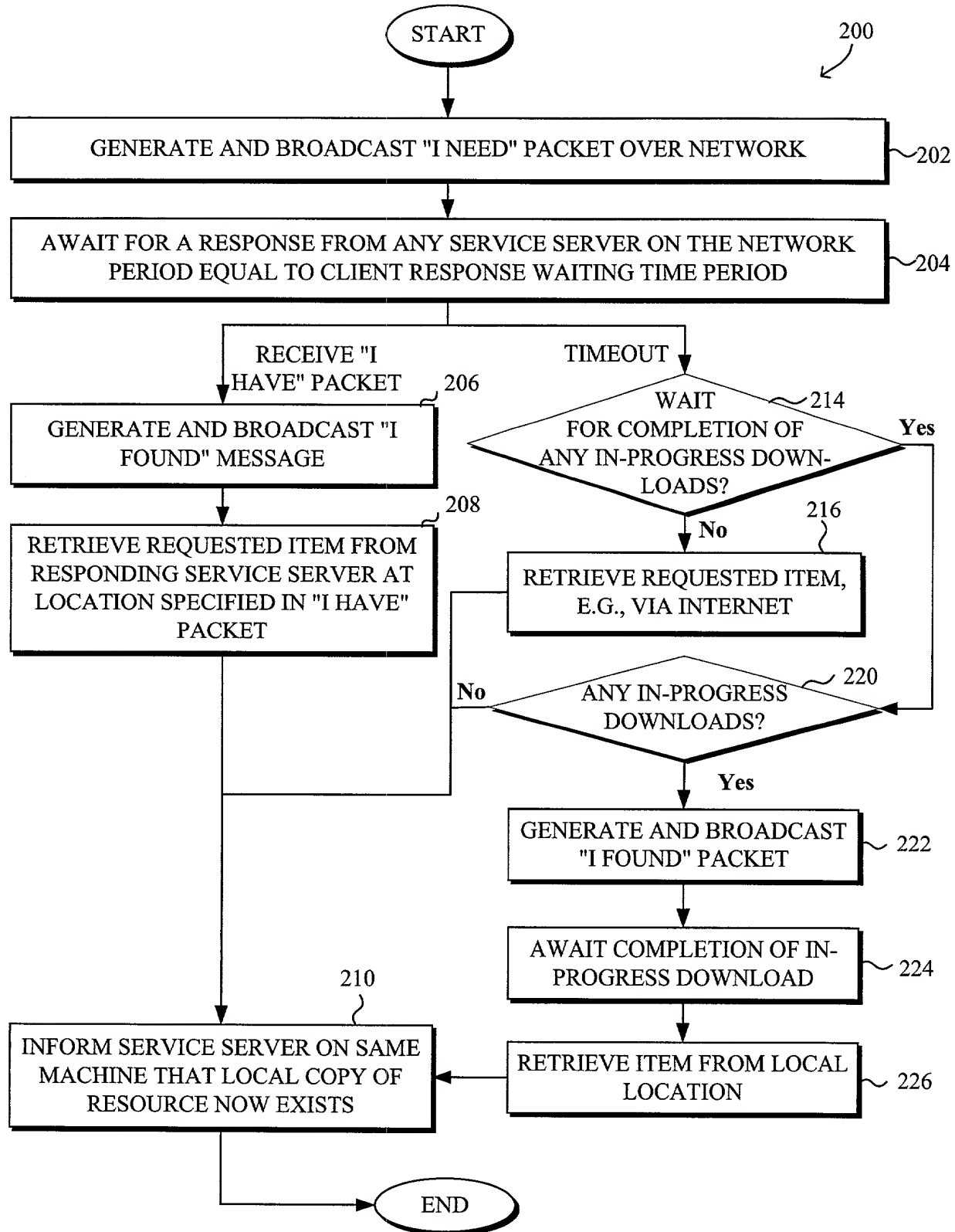


FIG. 6

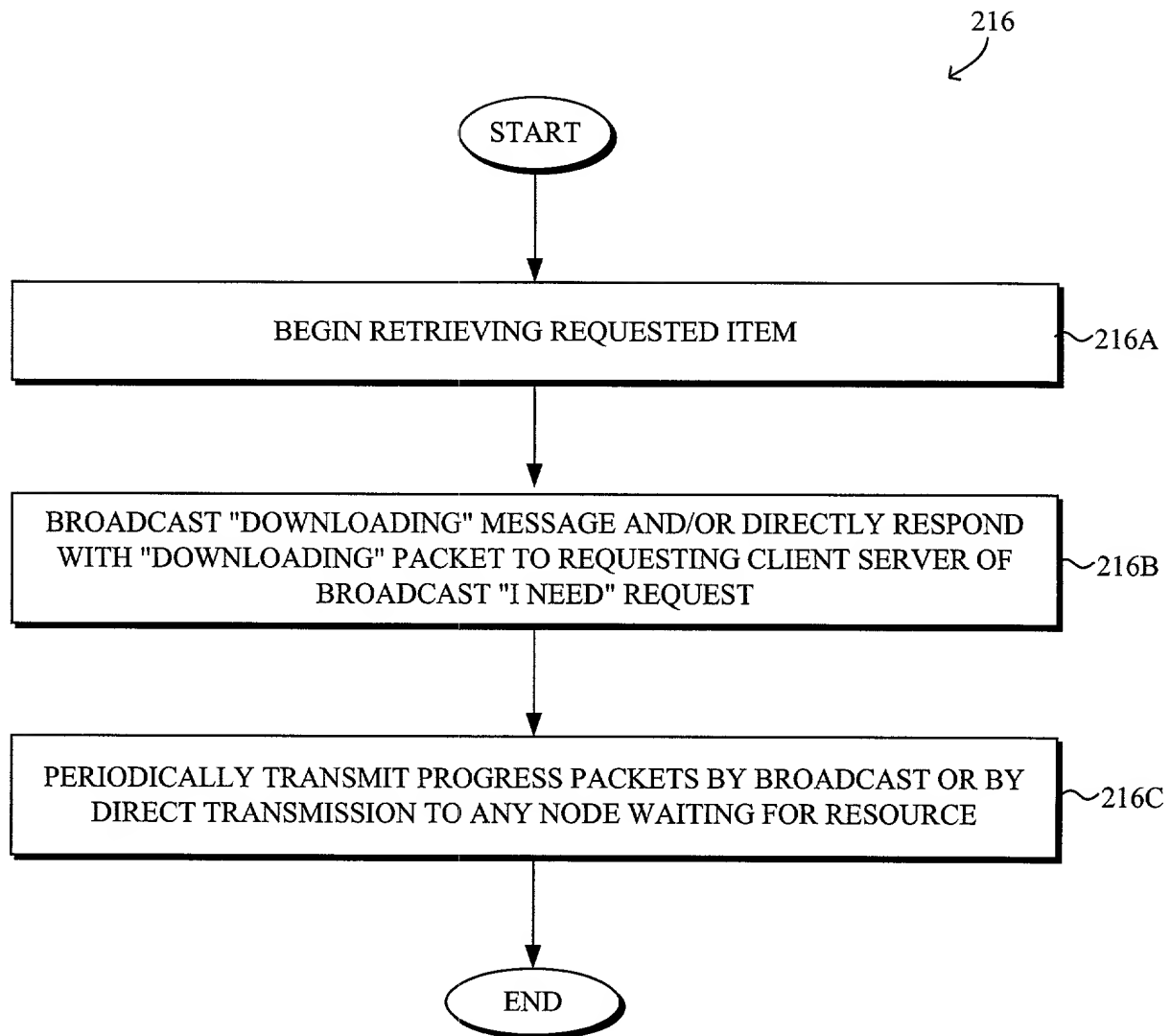


FIG. 7

500
↙

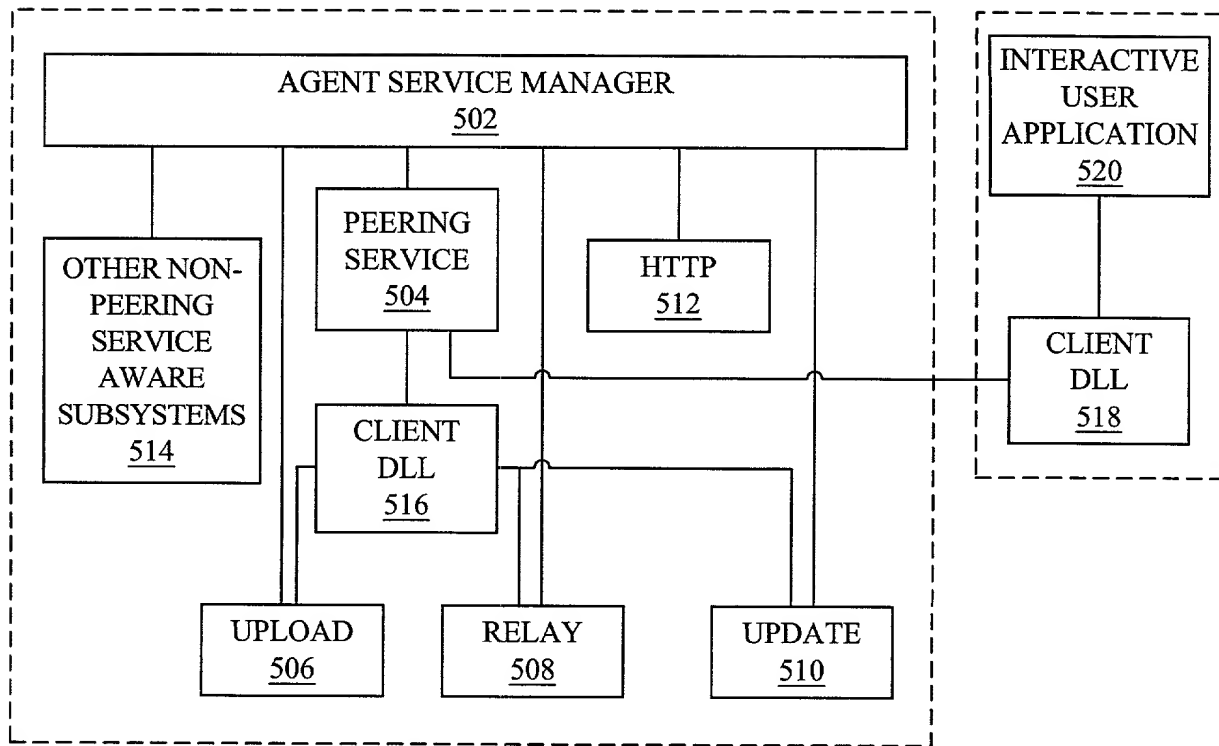


FIG. 8

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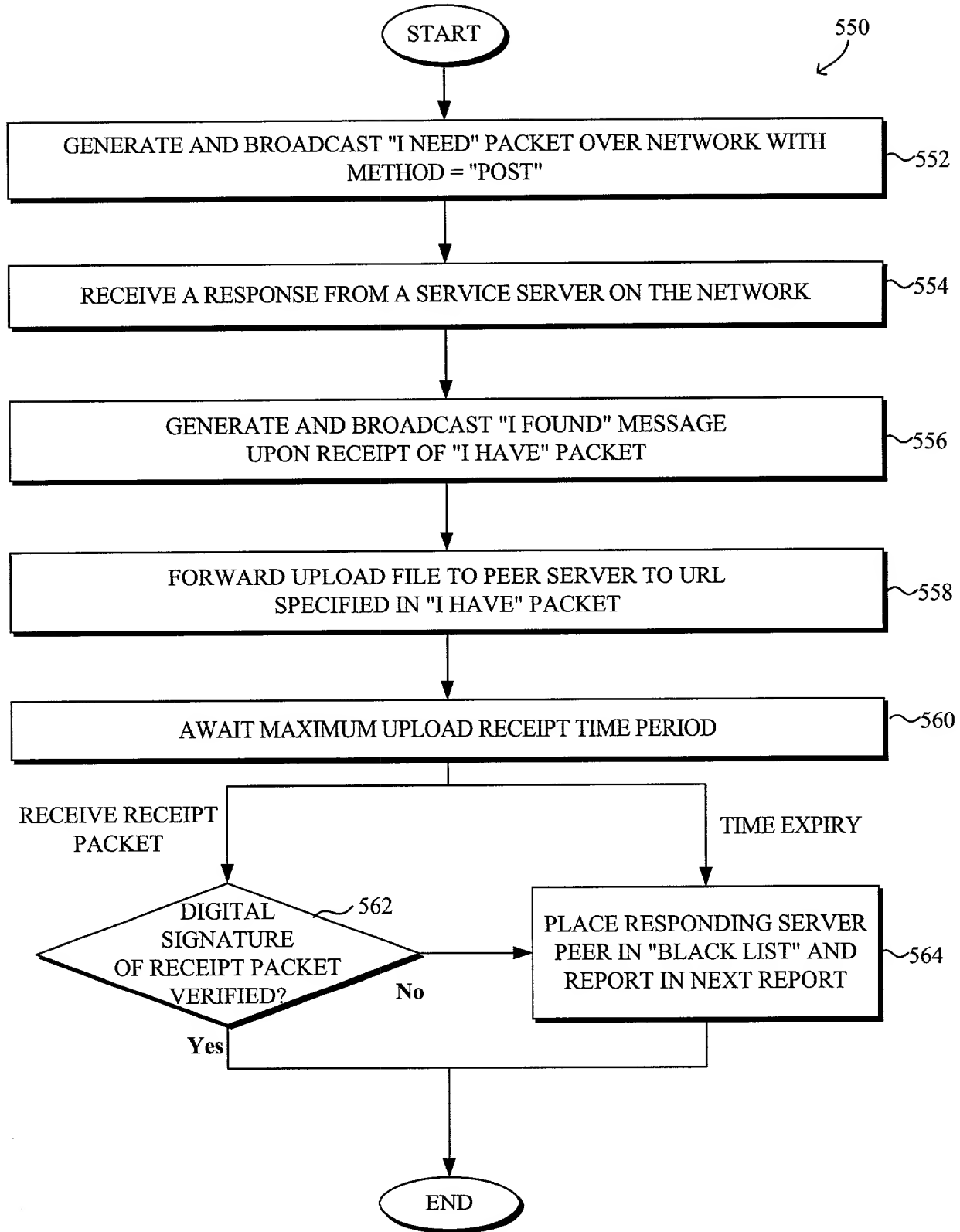


FIG. 9

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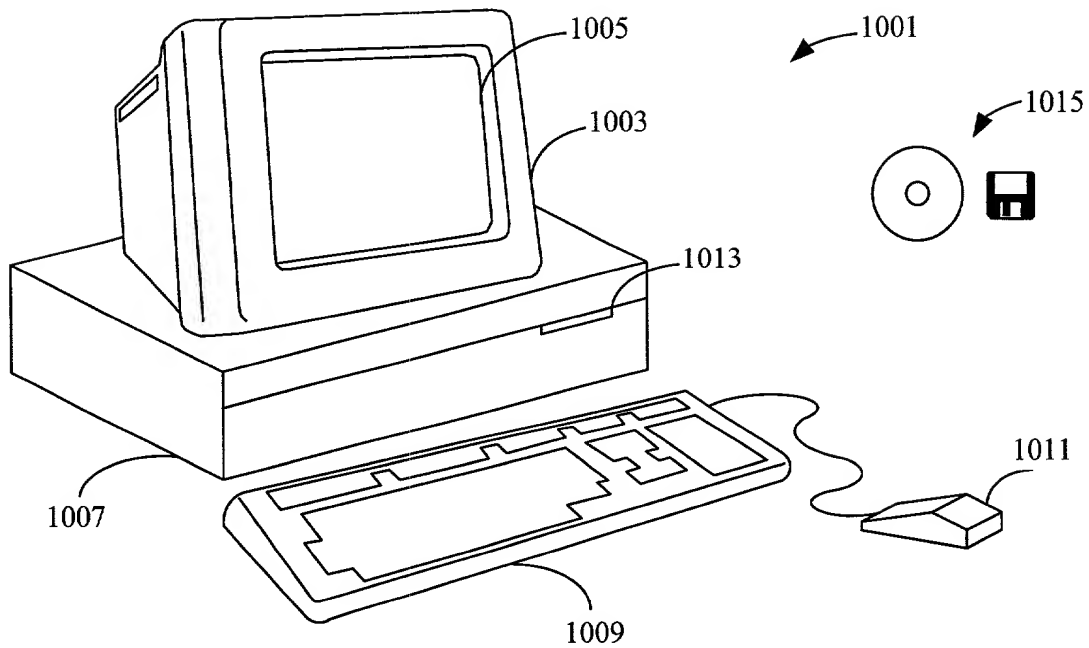


FIG. 10

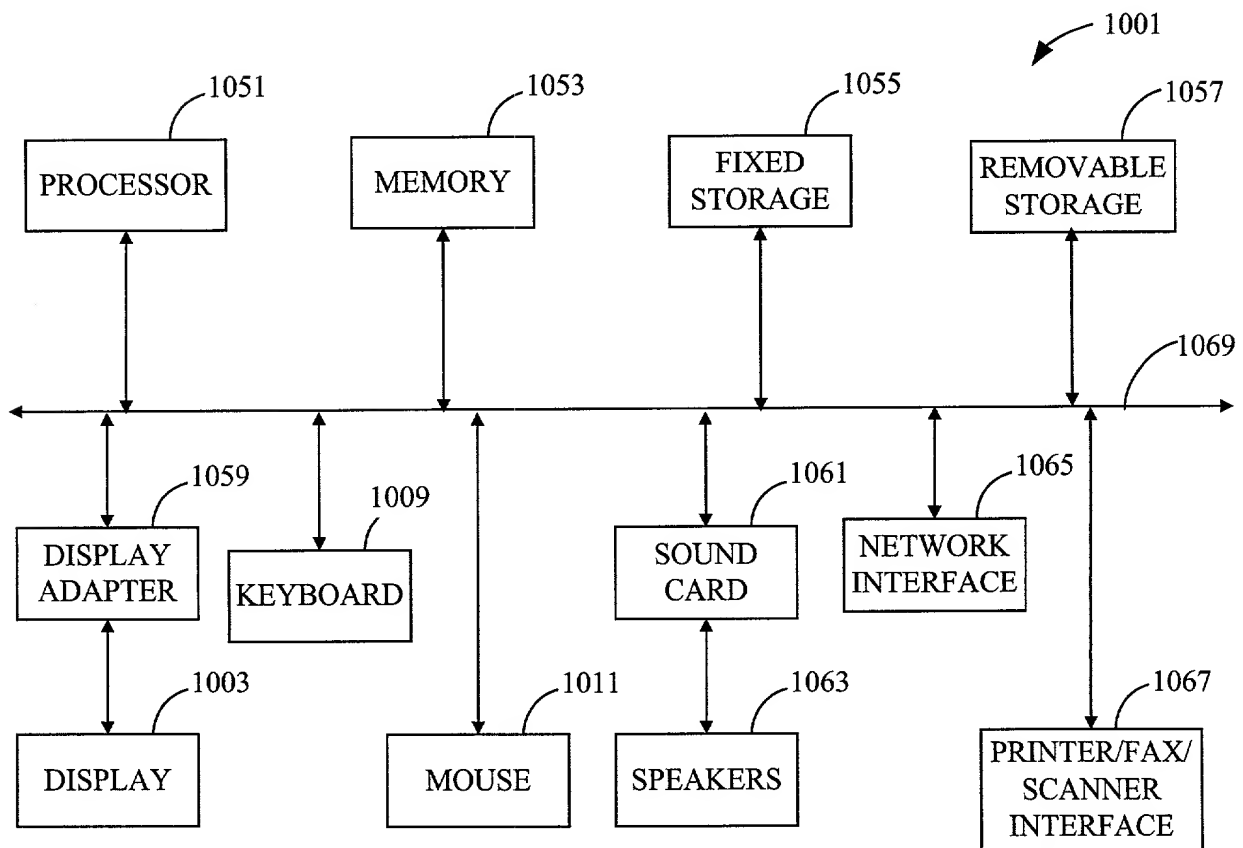


FIG. 11